

SECRET

SAPC 5582

Cy 4 of 8

20 April 1956

MEMORANDUM FOR: Project Operations Officer

SUBJECT : Visit to the Eastman Kodak Processing Plant
By [] (10-17 April)

1. Purpose of Trip-The purpose of the trip was to evaluate the photography from the U.S.C.M. test and to report results daily to the Project Operations. A secondary purpose was the evaluation of the present processing capability of the Processing Plant.
2. General Photographic Evaluation (Missions A-1018 and A-1019 and Camera #7 of Mission A-1012 not included)

a. Evaluation of Cameras #2,3 and 4

Overall Density-Generally the density appeared thin, but all negatives reported herein, except A-1012, received only primary development. Interrupted processing plus secondary development would provide necessary density in most cases.

Contrast and Range-Contrast tended to be low, but secondary development would possibly have helped to some extent.

APPARENT Resolution-The resolution was comparable to previously observed photography, but as noted in the past the resolution does not appear to be as good as the resolution of Cameras #5,6,7 and 8.

Flare-Very little noted, except occasionally when vehicle rolled or turned excessively.

Vacuum Failure-The only serious vacuum failure noted was a few frames on Mission A-1013, Camera #V3

Metering-No metering problem noted.

Clock-The clock appears to be improved somewhat, but is still not acceptable. It is blurred, faint and not always operating. The area on the clock face for mission numbers should be reduced in size to make the clock more readable.

25X1

(2)

Exposure Counter-The counter is invariably difficult or impossible to read and often does not advance properly when it can be seen.

Vignetting-Appears excessive for cameras utilizing Met-regon lenses. Presents a problem in printing because of the thin corners on each frame causing the darkening of print corners.

Fog Level-Expert processing produced negatives of minimum fog level.

Processing Defects-Some defects were noted such as improper drying, tearing and scratches, "etc." These defects will be eliminated as more experience is gained. Eastman Kodak has urgently requested large quantities of test material so they can gain necessary experience.

b. Evaluation of Cameras #5,6,7 and 8

Overall Density-Density varied with missions from thin to very dense. Secondary development would have been beneficial in several cases.

Contrast and Range-Poor to excellent.

Apparent Resolution-Poor to excellent. Where equipment was operating properly resolution was excellent.

Flare-None noted

Vacuum Failure-On missions A-1012 and A-1015 some frames appeared to have partial vacuum failure. The small blurred areas noted on previous photography (reported to [redacted] and [redacted] were noted on some missions, but not as frequently as in the past.

Spacing-Space between frames was often excessive. Specifications call for no more than one half inch between frames, but many missions were between three-quarters and one and three-quarters inches.

Clock-A new clock has been installed, but it tends to be thin (will not print) and often inoperative. The image is sharp, but needs added illumination.

25X1
25X1

(3)

Exposure Counter-The counter is generally too thin to print and often inoperative or advances intermittently.

Vignetting-None noted.

Fog Level-Excellent.

Processing Defects-(See 2 a. 5 above)

Oil-Mission A-1005 R-6 and A-1012 R-6

3. Processing Plant

- a. Processing-Primary processing has been underway for several weeks and generally most of the "bugs" have been removed from the processing operation.

All U.S.C.M. photography except mission A-1012, A-1018, A-1019 received only primary development.

Mission A-1012 received "Interrupted Processing" during my visit. This is accomplished by primary development followed by stabilization. The roll is then scanned by Infra-red to determine if further processing is required. The first attempt to utilize "Interrupted Processing" showed much promise for this technique.

It is necessary that large quantities of test photography be sent to the Processing Plant in order that experience is obtained and techniques developed.

- b. Printing-The printer is now at the plant but there presently is a tracking problem causing film and paper to tear. This shall be remedied shortly.

The printer utilizes a scanner which reads a high and low density on each frame regulating the intensity of white and blue printing lights used in conjunction with variable contrast Resisto printing paper.

- c. Titling Film-Some rolls were titled, with a temporary device, to provide P.I.'s with samples of letter size and type to evaluate. It appears to be very satisfactory.

- d. Cutting Prints- This was not accomplished because of the urgency of sending U.S.C.M. film to Washington. It appears that this job will have to be done manually.

080180100

080180100

(4)

4. Recommendations

- a. Data chamber-Illumination must be increased and counters and clocks must be repaired or replaced. These clocks and counters are of great importance to the Photo Interpreters and must operate reliably.
- b. Shutter Malfunction-On mission A-1007 Camera #2 malfunctioned. Samples were sent to the ranch.
- c. More Care During Preflight Needed- It has become apparent that more care should be taken during preflight camera inspections. Inspirative clocks, counters, "etc" should be noted during preflights.
- d. Oil on Optical Parts-Camera R-6 on Mission A-1005 and R-6 on A-1011 had negatives that appeared to have been taken through oil or hydraulic fluid. This should be checked.
- e. More clearances needed at Processing Plant-The plant will not be operational until more people are cleared and trained. It is recommended these clearances be accomplished as soon as possible.
- f. Scratches on Film From Cameras #2,3 and 4 - As in the past, all film viewed suffered from many scratches and pressure streaks (striations) parallel to the film roll. These magazines should be checked to determine cause.
- g. Processing Plant Should Experiment with Various Printing Papers-Roadsto type papers are presently being used at the plant. This paper takes a "permanent set" and after cutting curl badly. Possibly other printing papers would not curl as badly. A "print straightener" would probably help.


Photo Intelligence Officer

PCS/DCI/O/MK/cfm

Distribution:

Orig and 1-Ops

3-Contracting officer

4-F.I.

5-Photo Officer

6-Ops chrono

7-Admin chrono

8-Admin reading